

EJOMAT®

Engineering for Automated Fastening



EJOMAT® - for reliable automated assembly

The screw joint plays an important role during assembly. To fully guarantee the fastener element meets this important role, EJOT, as a system supplier, assists the individual customer on the way to a "zero defect" strategy with technical know-how and high-quality fastening technology.



Quality right from the start

Our EJOMAT® quality begins early with cooperation between design engineers and our customer's assembly experts. In the beginning of the design stage, with certain geometrical features of the fasteners, the tracks are laid for a minimisation of down-times.

Clearly defined objective

State of the art automated sorting and control processes with reference to one control feature is 10ppm.

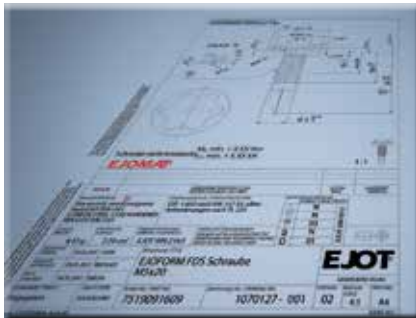




EJOMAT®



EIFI - authorised company representing the European fastener industry



Technical drawing of an EJOMAT® screw



10 ppm sorted for 3 – 4 criteria, photo-optical

"Zero Defect Strategy"

"Zero defect" strategy, as a mutual goal for manufacturer and customer, does not mean 0 ppm* sorting.

Even the most modern sorting technologies and machines are not able to inspect / sort all dimensions or features of the product. For this reason the EIFI guidelines "MECHANICAL FASTENERS QUALITY OF TECHNICAL CHARACTERISTICS" recommend that, ppm agreements can only be stipulated for one or multiple criteria.

State of the art for automated sorting and control processes with regards to one feature respectively, is 10 ppm max.

The purity grade for unsorted goods is 200 ppm max.

EJOMAT® - not just a sorting technology

Relevant features are identified and then monitored and registered during production, according to the quality control plan. This prevents most systematic errors.

The specified sorting criteria are fully tested with machines and the screws are then shrink-wrapped. This prevents contamination during transport or upon delivery at the customer. The realised purity grade is mainly influenced by the sorting process.

Source: EIFI guidelines "MECHANICAL FASTENERS QUALITY OF TECHNICAL CHARACTERISTICS".

*parts per million - acceptable number of defective parts per 1.000.000 parts.



EJOMAT® - grades

EJOMAT® sorting is possible in various purity grades.

According to the required degree of purity, based on the complete batch, one of the following grades can be selected:

| EJOMAT® grades |
|--|
| EJOMAT® 10 ppm |
| EJOMAT® 30 ppm |
| EJOMAT® + purity grade per customer request |
| <small><i>These purity grades are based on the complete batch. The higher the demands on purity, the higher the complexity of the sorting criteria. Since the EJOMAT® sorting is based on automated, machine sorting, every criterion can reach a maximum of 10 ppm.</i></small> |

EJOCLEAN® - technical cleanliness*

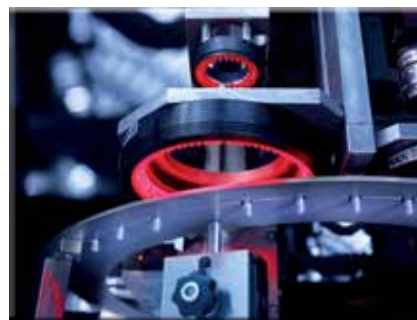
With the innovative EJOCLEAN® programme EJOT has been offering individual customer solutions to use “clean” fasteners in the assembly line. EJOT employs state of the art equipment and analysis technology to achieve and monitor cleanliness objectives.

| | EJOCLEAN® | |
|---|--|---|
| | Grade 1 | Grade 2 |
| Largest acceptable particle* | 800 µm | 400 µm |
| Recommended drawing specification | X = 800 µm according to VDA 19 / ISO 16232 | CCC = A (I-K00) according to VDA 19 / ISO 16232 or X = 400 µm according to VDA 19 / ISO 16232 |
| <small><i>Note: In individual cases deviations from these values are possible and not all surface coatings are available with an EJOCLEAN® grade. Different specifications have to be agreed upon separately. Also see EJOT company standard WN 0960 and VDA19. * The particle definition corresponds to VDA 19, fibres have to be considered separately.</i></small> | | |

EJOCLEAN® Grade 1 & 2

* EJOCLEAN® can only be supplied with EJOMAT® sorted goods.

EJOMAT®



10 ppm
sorted for 3 – 4 criteria, photo-optical



Packaging of the EJOMAT® parts in polyethylene bags



EJOT® service

EJOT screws suitable for automated fastening, not only include the production process and the delivery, but also professional application engineering advice with regards to the right fastener.

This applies to:

- Selection of suitable threads
- Determination of installation parameters
- Sorting
- Material recommendations
- Design engineering, also for drives and screw locking



EJOT® service

You benefit from an individual approach that focuses on your application.



Online Service area at www.ejot.com

By registering in our service area we provide you with many online services. In addition to various downloads of CAD data and product information you will have access to product configuration and videos, use of the DELTA and ALtra CALC® prognosis programmes as well as product sample ordering.



EJOT® APPLITEC

Your individual component and its optimum design engineering are the focus in our APPLITEC test laboratory. Comprehensive joint analysis facilitate the development of an ideal fastening technology solution. After the analysis you will receive a comprehensive test report.



EJOT® Rapid Parts

For urgently needed product samples the EJOT prototype management is your first contact. Within two to four weeks you will receive individual samples, and expert advice from our "sample specialists" is always guaranteed. Product samples are also available with original EJOT threads.



DELTA CALC and ALtra CALC®

Using the DELTA CALC and ALtra Calc® prognosis programmes for pre-dimensioning of thermoplastic and light metal joints, saves effort for component testing as well as time and costs. Our application engineers on site or the technical help line will be glad to help you.



Technical helpline

For questions specific to your application you will receive fast and expert advice from our technical help line. Our team of advisors will also provide you with drawings as well as DELTA and ALtra CALC® prognoses.